REMARKS

Claims 1-6 are all the claims pending in the application. Claims 1-6 of the subject application have been amended in order to correct informalities and to more clearly point out the claimed invention as set forth in the amendment to the claims enclosed herewith. No new matter has been introduced and entry of the amendments is respectfully requested.

Abstract

A new abstract of disclosure in accordance with 37 C.F.R. § 1.52(b)(4) is included in the amendment.

Claim Objections

Claims 1, 2, 4 and 5 were objected to because of informalities (misspelled terms). Claims 1, 2, 4 and 5 have been amended to correct the informalities. Specification also has been amended to correct misspelled words. Accordingly, claim objections are overcome by the amendments and it is respectfully requested to withdraw the claim objections.

Claim Rejection: 35 U.S.C. § 112, second paragraph

The Office Action has rejected Claim 5 under 35 U.S.C. § 112, second paragraph it is indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

Claim 5 has been amended to insert chemical formulas of compounds (Ib), (II), and (III). Support for the amendments may be found, for example, in Claim 4.

Therefore, the rejection of Claim 5 under 35 U.S.C. § 112, second paragraph is moot in view of the amendment and it is respectfully requested that the rejection be withdrawn.

Claim Rejection: 35 U.S.C. § 103

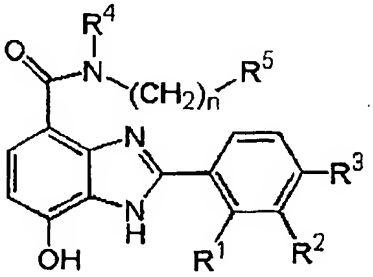
Claims 1-3 and 6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lubisch et al. (WO 00/29384 or US equivalent 6,509,365) (hereinafter, referred to as "Lubisch"). Applicants respectfully traverse the rejection for the following reasons.

Lubisch discloses 2-phenylbenzimidazoles and 2-phenylindoles, method for the preparation thereof and their use as inhibitors of the enzyme poly(ADP-ribose) polyrmerase or PARP (EC 2.4.2.30) for the production of drugs.

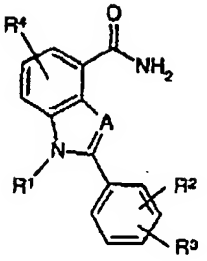
The Office Action's position was that 2-phenylbenzimidazoles of Lubisch are structurally similar to the compounds of the subject invention in terms of, for example, formula I wherein A is N, R^2 is hydrogen, R^3 is —$(CH_2)_q$-$NR^{31}R^{32}$, q is 0, R^{31} is hydrogen, R^{32} is —(CH_2)r-$NR^{33}R^{34}$, r is 2, R^{33} and R^{34} together with the nitrogen atom are a ring of 3 to 8 atoms which can carry an additional heteroatom, R^4 is OR^{41} and R^{41} is hydrogen and that the motivation to make the compounds of the present invention derives from the expectation that structurally similar compounds would possess similar activity (e.g., a PPAR inhibitor).

Contrary to the Examiner's position, the compounds of Claim 1 as amended is distinguished from the compounds taught by Lubisch in terms of structure, use, and effects.

For example, the compounds of amended Claim 1 has –$CONR^4$-$(CH^2)_n$-R^5 (except for —$CONH_2$) group at position 4 of the benzimidazole ring, while the compound taught by Lubisch has –$CONH_2$ group:



Compound (I) of the present Invention



Compound of Lubisch

In addition, the compound of Claim 1 of the present application has an -OH group at position 7 adjacent to the –NH group of position 1 of the benzimidazole ring. The –OH and –NH groups of the benzimidazole ring of the presently claimed compound form a substrate-binding site. The compound of the present application shows an inhibitory activity against Glycogen synthase kinase 3 ß (GSK-3 ß).

To the contrary, Lubisch does not disclose or suggest a compound having an –OH group at position 7 of the benzimidazole ring.

The structural differences between the compounds attribute the differences in their activities. For example, the compound of the present application is useful in preventing or treating such diseases as fatness, diabetes, and dementia by inhibiting GSK-3β. It is described that the compound taught by Luchsch is useful in preventing or treating such diseases as neurodegenerative disease, neuronal damages, tumor by inhibiting activity of poly (ADP-ribose)polymerase (PARP).

Furthermore, the pharmacological activity (e.g., GSK-3β inhibiting activity) of the presently claimed compound (I), wherein R^5 is one of the groups as recited in amended Claim 1, is superior to that of the compound wherein R^4 and R^5 are each a hydrogen atom. Referring to

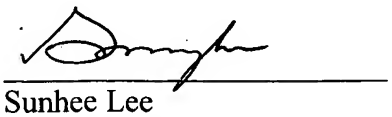
Tables 1 (pages 5-14) and 3 (pages 90-92) of the specification of the present application, Compound Nos. 114 (R^5=4-(methanesulfonaidyl)phenyl) and 162 (R^5=methyl) showed an IC_{50} (GSK-3β inhibiting activity) of 0.001 μM and 0.24 μM, respectively. To the contrary, Compound Nos. 1 (R^5=H) and 21 (R^5=H) showed an IC_{50} of greater than 1 μM and 5 μM, respectively.

Accordingly, it is believed that the rejection under 35 U.S.C. § 103(a) is not sustainable and it is respectfully requested that the rejection be withdrawn.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Sunhee Lee
Registration No. 53,892

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

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